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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,876	07/03/2003	Frank Kelly	115426-834	6297
29158 7590 06/11/2007 BELL, BOYD & LLOYD LLP P.O. BOX 1135 CHICAGO, IL 60690			EXAMINER ZEWDU, MELESS NMN	
			ART UNIT	PAPER NUMBER
			2617	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/613,876

Applicant(s)

KELLY ET AL.

Examiner

Meless N. Zewdu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-8, 10-14 and 16-25 is/are rejected.
- 7) ☒ Claim(s) 2, 9 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to remarks***

1. This action is in response to the communication filed on 3/27/07.
2. Claims 1-25 are pending in this action.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7, 21, 23 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The above mentioned claims, instead of point out and distinctly claim the subject matter which applicant regards as the invention, incorporates other claims by reference, which is not appropriate for claims configured in independent form.

***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140

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F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 6,987,741 B2.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims both in the patent and the instant application are patentably distinct from each other. For instance, while the claims in the patent recite allocating additional bandwidth corresponding to the next largest backlog of user (transceiver) data based on traffic statistics, the claims in the instant application recite allocating additional capacity, for a terminal having an anticipated additional data, based on the loading of the data network.

Claims 1-25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-32 of U.S. Patent No. 6,650,869 B2.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the difference between the claims in the patent and the claims in the instant application is that the claims in the instant application are broader than the claims in the patent; other difference are phrasings (for example receiving and detecting) which are similar and inherent in a communication system.

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosati (US 6,041,233) in view of Simonsen et al. (Simonsen) (US 7,133,395 B2).

**As per claim 8:** Rosati discloses a system for managing bandwidth (see figs. 3 and 4, element 20; col. 3, lines 8-15), in a data network (see col. 6, lines 8-17), the system comprising:

a relay (satellite) station configured to support transmission of data over a communication channel (see figs. 3 and 4; col. 6, lines 8-17); and

a hub configured to allocate capacity on the communication channel for a terminal to transmit the data over the communication channel (see abstract; col. 4, lines 54-67), wherein, the hub further allocates additional capacity on the communication channel for the terminal (see col. 4, lines 54-67), according to (based on) loading (resource availability) (see col. 4, lines 34-37, 54-67). Examiner considers the demand-net operation center (DOC) as a hub. But, Rosati does not explicitly teach about anticipating a terminal having to transmit additional data, and the anticipatory allocation is being determined according to loading to the data network, as claimed by applicant.

However, in the same field of endeavor, Proctor, Jr. teaches about a data network

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wherein --- more channels or throughput capability can be allocated to a user if it is anticipated that there will be a need for higher data throughput and such resources are available (i.e., if the network is not overloaded) (see col. 12, lines 23-27). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Rosati with that of Proctor for the advantage of enabling Rosati's communication system respond more quickly to throughput demands of end users (see col. 4, lines 44-50).

**As per claim 7:** the feature of claim 7 is directed to a computer readable medium for managing bandwidth in a data network, by executing the steps of claim 1. However, since the steps of claim 1 are shown to have been performed, as discussed in the rejection of claim 1 above, the computer readable medium of claim 7 should be an obvious feature of the prior art. Hence, claim 7 is rejected on the same ground and motivation as claim 1.

**As per claim 1:** the features of claim 1 are similar to the feature of claim 8, except claim 8 is directed to a system for performing the steps of the method claim 1, and further include a relay/satellite station configured to support transmission of data over a communication channel, which is taught by Rosati (see fig. 3, element 12). Hence, since the difference feature is taught and the method of claim 1 is required by the corresponding system of claim 8, claim 1 is rejected on the same ground and motivation as claim 8.

**As per claim 3:** Williams teaches a method, wherein the step of further allocating is performed for a predetermined period after the initial allocation (see col. 3, lines 5-11).

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When the references are combined as shown above, the method will include --

selectively adjusting the predetermined period based on the load.

**As per claim 4:** the features of claim 4 are similar to the features of claims 1 and 8, except limiting the anticipatory allocations to a predetermined level based on availability, which is taught by Rosati (see col. 4, lines 3244). Hence, claim 4 is rejected on the same ground and motivation as claims 1 and 8.

**As per claim 5:** the features of claim 5 are similar to the features of claim 4, except capacity across the group of communication channels, which is taught by Rosati 9see col. 4, lines 32-67; claim 1).

**As per claim 6:** Rosati teaches a method, wherein the data network includes a satellite for supporting two-way communication between the terminal and a hub, and the terminal is a very small aperture terminal (VSAT), the communication channel being based on time division multiple access (TDMA) (see col. 3, lines 16-29).

**As per claim 11:** the features of claim 11 are similar to the features of claim 4. Hence, claim 11 is rejected on the same ground and motivation as claim 4.

**As per claim 12:** the feature of claim 12 is similar to the feature of claim 5. Hence, claim 12 is rejected on then same ground and motivation as claim 5.

**As per claim 13:** the feature of claim 13 is similar to the feature of claim 6. Hence, claim 13 is rejected on the same ground and motivation as claim 6.

**As per claim 14:** the features of claim 14 are similar to the features of claim 8, except claim 14 is directed to an apparatus and claim 8 is directed to a system, the difference

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of which carries no patentable weight since both are intended to perform similar functions. Hence, claim 14 is rejected on the same ground and motivation as claim 8.

**As per claim 17:** the feature of claim 17 is similar to the feature of claim 4. Hence, claim 17 is rejected on the same ground and motivation as claim 4.

**As per claim 18:** the feature of claim 18 is similar to the feature of claim 5. Hence, claim 18 is rejected on the same ground and motivation as claim 5.

**As per claim 19:** the feature of claim 19 is similar to the feature of claim 6. Hence, claim 19 is rejected on the same ground and motivation as claim 6.

**As per claim 20:** the features of claim 20 are similar to the features of claim 8, except detecting an active terminal in the communication system, which is taught by Rosati (see abstract). Locating/detecting a set of user terminals in a coverage area includes a one terminal. Furthermore, Rosati also teaches bandwidth allocation based on the size of the bandwidth allocations (see col. 4, lines 32-67), hence, satisfying the one of the conditions for allocation. Hence, claim 20 is rejected on the same ground and motivation as claim 8.

**As per claim 21:** the feature of claim 21 is directed to a computer readable medium for managing bandwidth in a data network, by executing the steps of claim 20. However, since the steps of claim 20 are shown to have been performed, as discussed in the rejection of claim 20 above, the computer readable medium of claim 21 should be an obvious feature of the prior art. Hence, claim 21 is rejected on the same ground and motivation as claim 20.



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Claims 3, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references applied to the claims above, and further in view of Simonsen et al.

(Simonsen) (US 7, 133,395 B2).

**As per claim 3:** the above references do not explicitly teach about selectively adjusting a predetermined period (slot), as claimed by applicant. However, in the same field of endeavor, Simonsen teaches about a communication system wherein the predetermined period (slot size) can be either constant or changed/adjusted (see col. 6, lines 4-22; col. 7, lines 27-52; col. 8, lines 55-64). When the references are combined as shown above, the method will include – the slots/period will be selectively adjusting based on the load/resources availability/ provided in Rosati. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to further modify the above references with the teaching of Simonsen so that a wideband channel in each slot of a link is adapted to be rate adjusted to meet the transmit data bandwidth of a remote node on demand (see col. 1, lines 63-67).

**As per claim 10:** the feature of claim 10 is similar to the feature of claim 3. Hence, claim 10 is rejected on the same ground and motivation as claim 3.

**As per claim 16:** the feature of claim 16 is similar to the feature of claim 3. Hence, claim 16 is rejected on the same ground and motivation as claim 3.

Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosati in views of Black et al. (Black) and (US 6,208,873 B1) and Simonsen et al. (Simonsen) (US 7,133,395 B2).

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**As per claim 22:** a method for ranging in a two-way radio communication system including a plurality of terminals (abstract; col. 6, lines 8-17), the method comprising:

allocating capacity on channel for transporting signals from the terminals (see abstract; col. 3, lines 8-15, 48-54; col. 4, lines 32-67; col. 5, line 17-50);

monitoring the allocation of the capacity and selectively/variably adjusting the capacity based upon the allocation of the capacity and loading of the system (see abstract; col. 4, lines 32-67). Note: the phrase "the collective bandwidth requirement" indicates monitoring is inherent. But, Rosati does not explicitly teach about transmitting a command to each of the terminals concurrently to enter/support a ranging mode for adjusting at least one of power and timing of the terminals, as claimed by applicant. However, in the same field of endeavor, Black teaches about reverse link power control, wherein a plurality of power control channels are simultaneously transmitter to mobile units from a base station (see col. 5, lines 34-49). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Rosati with that of Black so as to determine whether to have a mobile station increase or decrease its transmit power (see col. 1, lines 17-36). But, Rosati in vie of Black doe not explicitly teach about a contention channel and ranging, as claimed by applicant. However, in the same field of endeavor, Simonsen teaches about a central node issuing a command to remote nodes (see fig. 1) to coordinate all remote node data or communication link activities (see col. 3, lines 25-33) and wherein the range between the central node and the remote unit is compensated (see col. 8, lines 55-64).

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Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention s made to further modify the above references with the teaching of Simonsen so that a wideband channel in each slot of a link is adapted to be rate adjusted to meet the transmit data bandwidth of a remote node on demand (see col. 1, lines 63-67).

**As per claim 23:** the feature of claim 23 is directed to a computer-readable medium for performing the steps of claim 22. Because the prior art of record discloses/teaches the steps of claim 22, the computer-readable medium of claim 23 should be obvious.

Hence, claim 23 is rejected on the same ground and motivation as claim 22.

Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosati in view of Williams (US 5,745,836).

**As per claim 24:** some of the features of claim 24 are similar to the features of claim 8 and hence rejected therewith, except allocating a number of slots on a contention channel and adjusting the contention channel which is taught by Simonsen (llams (see col. 2, line 58-col. 3, line 23). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Rosati with that of Willams for the advantage of maintaining a consistent quality of service for the entire network (see 3, lines 16-19).

**As per claim 25:** the feature of claim 25 is directed to a computer-readable medium for performing the steps of claim 24. Because the prior art of record discloses/teaches the steps of claim 24, the computer-readable medium of claim 25 should be obvious.

Hence, claim 25 is rejected on the same ground and motivation as claim 25.

***Allowable Subject Matter***

Claims 2, 9 and 15 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection. With regard to claims 24 and 25, there was not argument presented and no response is provided or necessary.

With regard to the objection of claims 7, 21, 23 and 25, as being improperly configured, examiner noted applicant's argument in traversing examiner's position by citing MPEP § 2173.05(f). Examiner would like to point out that the cited portion of the MPEP allows such a claim configuration for dependent claims, but for independent claims. This is underscored by the statement " a claim which makes reference to a preceding claim to define a limitation is an acceptable ---", in the cited portion of the MPEP. It is clear that this statement is directed to dependent claims since independent claims do not and should not have a preceding claim. The claims were objected on the assumption that they were improperly configured dependent claims. But, now applicant has made it clear that they are indeed independent claims, a rejection under the second paragraph of 112 has been found proper.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N. Zewdu whose telephone number is (571) 272-7873. The examiner can normally be reached on 8:30 am to 5:00 pm..

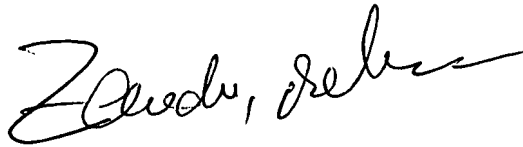
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Appiah Charles can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Any inquiry of a general nature relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600

Meless zewdu

A handwritten signature in cursive script, appearing to read 'Zewdu, Meless', written in black ink.

Primary Examiner

01 June 2007.